

OVERCOMING CHALLENGES IN THE KIDSTON HYDRO PROJECT

Client Profile

McConnell Dowell John Holland (MDJH JV) have been selected to deliver the Kidston Pumped Storage Hydro Project. The project is located in Kidston, approximately 400 km inland from Townsville in Far-North Queensland. It is the first pumped storage hydro project in the country for over 40 years, which is being built for Genex Power.

The Problem

The clients had a 300-day construction window to remove the water into the upper reservoir. That's dictated some fairly large pumps with a combined mass of about 60 tonne. McConnell Dowell John Holland (MDJH JV) collaborated with Coerco to provide that floating solution for that pump system with the following key performance elements.

- The stability of the pontoon and its ability to carry the weight of the pumps safely.
- A modular system that could easily be transported to the site across some challenging roads.
- Given, there was a need to pull 180 meters of water from within the pit, an elaborate winching system had to be developed to allow the pontoon to be descended, as the water level dropped.

The Solution

Coerco was engaged to provide a fit-for-purpose floating solution for the pumps, which required a stable and durable pontoon capable of carrying the weight of the pumps safely.

They also needed a modular system that could easily be transported to the site as well as be assembled with the available resources within the site's limitations.

Coerco collaborated with the client and developed concepts based on input parameters from the site. They also incorporated feedback on module handling, assembly, and craning into the final design.

The pontoon was held in place using a winch arrangement with three winches placed at approximately 120°. One of the winches had a 14-tonne winch system with a 40-tonne capacity dynamo rope that was scuff-resistant and non-conductive.

Summary

Location

Kidston, Queensland



Client

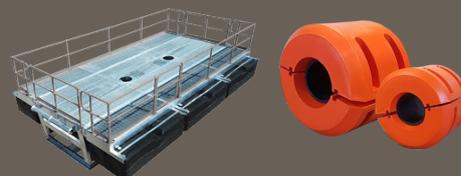
McConnell Dowell
John Holland (MDJH JV)

**McCONNELL
DOWELL**

**JOHN
HOLLAND**

Products Used

Heavy Duty Pontoon
Multi Floats®



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The flagship A\$777M Kidston Hydro Project is one such landmark achievement that represents the mining industry's pursuit toward a greener future for Australians.